



Recommendation System by Analyzing User Review Using Machine Learning

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Section 7

Department of Electrical and Computer Engineering
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Declaration

This is to declare that no part of this report or the project has been previously submitted elsewhere for the fulfillment of any other degree or program. Proper acknowledgement has been provided for any material that has been taken from previously published sources in the bibliography section of this report.

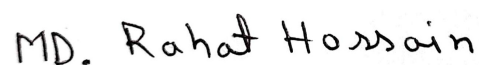
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The Senior Design Project entitled “Recommendation System by Analyzing User Review Using Machine Learning” by Md. Iqbal Hossain (1530260042), Md. Rahat Hossain (1530014042) and Fariha Ahmed Raha (1712823642) has been accepted as satisfactory and approved for partial fulfillment of the requirement of the Degree of Bachelor of Science in Computer Science and Engineering on May and has been accepted as satisfactory on Spring 2021.

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Abstract

This report presents the design and the implementation of Recommendation System by analyzing user reviews using machine learning. The system will filter using hybrid filtering (content based and collaborative) for users' choices and analyzing reviews of users for that product, more items are recommended. It merged some categories of items from the dataset and used Truncated SVD (Singular value decomposition) to reduce the number of unnecessary features and dimensions of the dataset. It made a correlation between all the items with items purchased by the user based on items rated by other users who bought the same products. The algorithms are SVD, KNN and KNNWithMeans which has been applied to the system to make a model for recommendation. Overall, the system produced satisfactory results, successfully recommending top 10 products to users having the same taste of choice while also maintaining its design objectives of ring low cost and user friendly.